# Pan Li

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#### **EDUCATION**

### New York University, Stern School of Business

New York, NY

Ph.D. in Information System

(Expected) May 2023

Advisor: Alexander Tuzhilin

### University of Science and Technology of China

Anhui, China

B.S., Mathematics & Computer Science (Special Class for the Gifted Young)

June 2017

### **INDUSTRY EXPERIENCE**

Visiting Researcher, Google Brain	2022-2023
Research Intern, Alibaba Inc.	2019; 2020-2021
Research Intern, Sinovation Ventures	2017
Research Intern, Baidu Inc.	2016-2017

#### RESEARCH INTERESTS

- Personalization: Recommender Systems
- Artificial Intelligence: Deep Learning, Natural Language Processing
- Quantitative Marketing: Consumer Behavior Modeling
- Causal Inference: Controlled Experiment

### JOURNAL PUBLICATIONS

- [1] Pan Li, Brian Brost, Alexander Tuzhilin, "Adversarial Learning for Cross-Domain Recommendations", Forthcoming at *ACM Transactions on Intelligent Systems and Technology* (TIST) (2022)
- [2] Pan Li, Alexander Tuzhilin, "Dual Metric Learning for Effective and Efficient Cross-Domain Recommendations", Forthcoming at *IEEE Transactions on Knowledge and Data Engineering* (TKDE) (2021)
- [3] Pan Li, Alexander Tuzhilin, "Learning Latent Multi-Criteria Ratings from User Reviews for Recommendations", *IEEE Transactions on Knowledge and Data Engineering* (**TKDE**), Volume: 34 Issue: 8, pp. 3854 3866 (2020)
- [4] Pan Li, Alexander Tuzhilin, "Latent Unexpected Recommendations", ACM Transactions on Intelligent Systems and Technology (TIST), 11(6), pp.1-25 (2020)
- [5] Chen Zhu, Hengshu Zhu, Hui Xiong, Chao Ma, Fang Xie, Pengliang Ding, Pan Li, "Person-Job Fit: Adapting the Right Talent for the Right Job with Joint Representation Learning", ACM Transactions on Management Information Systems (TMIS) 9, no. 3: 1-17 (2018)

#### JOUNRAL PAPERS UNDER REVIEW

- [1] Pan Li, Alexander Tuzhilin, "When Variety-Seeking Meets Unexpectedness: Incorporating Variety-Seeking Behavior into Design of Unexpected Recommender Systems" Under Third-Round Review at *Information System Research* (ISR) (after Major Revision)
- [2] Pan Li, Alexander Tuzhilin, "Exploring and Exploiting Consumer Preferences through Deep Reinforcement Learning and Latent Trajectory Modeling in Recommender Systems" Under Second-Round Review at *Management Information System Quarterly* (MISQ) (after Major Revision)
- [3] Moshe Unger, Pan Li, Maxime Cohen, Brian Brost, Alexander Tuzhilin, "Deep Multi-Objective Multi-Stakeholder Music Recommendation", Under Second-Round Review at *Information System Research* (ISR) (after Major Revision)
- [4] Pan Li, Alexander Tuzhilin, "Killing Two Birds with One Stone: Deep Reinforcement Learning for Optimizing Multiple Objectives in Recommender System", Reject and Resubmit at *Information System Research* (ISR)
- [5] Moshe Unger, Pan Li, Shahana Sen, Alexander Tuzhilin, "Reconstructing Universal Embeddings of Customers from Domain-Specific Embeddings", Major Revision at *ACM Transactions on Management Information Systems* (TMIS).

#### **WORKING PAPERS**

- [1] Pan Li, Alexander Tuzhilin, "I want to know more!": Measuring the Impact of Triggering Consumer Curiosity in Recommender System", to be submitted to *Marketing Science* (MKSC)
- [2] Pan Li, Ying Yang, Maofei Que, Ping Yang, Alexander Tuzhilin, "Dual Contrastive Learning for Efficient Static Feature Representation in Recommender System", in preparation for submission to *Marketing Science* (MKSC)

### TOP-TIER CONFERENCE PUBLICATIONS

- [1] Pan Li, Zhichao Jiang, Maofei Que, Yao Hu, Alexander Tuzhilin, "Dual Attentive Sequential Learning for Cross Domain Click-Through Rate Prediction", *Proceedings of the 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD 2021) *Full Paper with Oral Presentation; Acceptance Rate: 15.4%*
- [2] Pan Li, Maofei Que, Zhichao Jiang, Yao Hu, Alexander Tuzhilin, "PURS: Personalized Unexpected Recommender System for Improving User Satisfaction", *Proceedings of the 14th ACM Conference on Recommender System* (RecSys 2020)

  Full Paper with Oral Presentation; Acceptance Rate: 18%
- [3] Pan Li, Alexander Tuzhilin, "DDTCDR: Deep Dual Transfer Cross Domain Recommendation", *Proceedings of the 13th International Conference on Web Search and Data Mining* (WSDM 2020)

Full Paper with Oral Presentation; Acceptance Rate: 15%

[4] Pan Li, Alexander Tuzhilin, "Towards Controllable and Personalized Review Generation", Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP 2019)

Full Paper with Poster Presentation; Acceptance Rate: 24.6%

- [5] Pan Li, Alexander Tuzhilin, "Latent Multi-Criteria Ratings for Recommendations", Proceedings of the 13th ACM Conference on Recommender Systems (RecSys 2019) Short Paper with Poster Presentation; Acceptance Rate: 19%
- [6] Pan Li, Alexander Tuzhilin, "Latent Modeling of Unexpectedness for Recommendations", Proceedings of the 13th ACM Conference on Recommender Systems (RecSys 2019)

  Late-Breaking Result Track Paper with Poster Presentation; Acceptance Rate: 31%
- [7] Tong Xu, Hengshu Zhu, Chen Zhu, Pan Li, Hui Xiong, "Measuring the popularity of job skills in recruitment market: A multi-criteria approach", *Proceedings of Thirty-Second AAAI Conference on Artificial Intelligence* (AAAI 2018)

  Full Paper with Poster Presentation; Acceptance Rate: 24.6%

### **TEACHING EXPERIENCE**

### **New York University**

New York, NY

Instructor for the undergraduate course "Data Science for Business"

Summer 2022

- Teaching Evaluation: **5.0/5.0** (instructor) **4.7/5.0** (course)
- In-person interactive teaching based on lectures, hands-on sessions and case studies
- 15 students enrolled (undergraduate-level)

### **New York University**

New York, NY

Teaching Fellow for "Introduction to AI & Its Applications in Business" Spring 2020, 2021

- Co-design the class materials, homework assignments and final project with the instructor
- Lead of the lab session for 60 students (MSBA and MBA-level)

### **INVITED TALKS**

- [1] "Recent Progress on Consumer Exploration", Invited Talk at Google Brian, July 2022
- [2] "I want to know more!": Measuring the Impact of Triggering Consumer Curiosity in Recommender System", ISMS Marketing Science Conference, Virtual, June 2022 (ISMS 2022)
- [3] "Reconstructing Universal Embeddings of Customers from Domain-Specific Embeddings", ISMS Marketing Science Conference, Virtual, June 2022 (ISMS 2022)
- [4] "Dual Learning for Cross-Domain Recommendations", Invited Talk at TikTok, April 2022
- [5] "Exploring and Exploiting Consumer Preferences through Deep Reinforcement Learning and Latent Trajectory Modeling in Recommender Systems", *The 31st Workshop on Information Technology and Systems, Austin, TX, December 2021* (WITS 2021 Doctoral Consortium)

- [6] "Multi-Faceted Consumer Preferences: Incorporating Unexpectedness and Cross-Domain Information into Design of Recommender System", *The 31st Workshop on Information Technology and Systems, Austin, TX, December 2021* (WITS 2021)
- [7] "Unexpectedness in Recommender Systems", Invited Talk at Alibaba, September 2021
- [8] "Leveraging Multi-Faceted User Preferences for Improving Click-Through Rate Predictions" ACM Conference on Recommender Systems, Virtual, September 2021 (RecSys 2021 Doctoral Consortium)
- [9] "When Variety-Seeking Meets Unexpectedness: Incorporating Variety-Seeking Behavior into Design of Unexpected Recommender Systems", *Conference on Information Systems and Technology, Anaheim, CA, October 2021* (CIST 2021)
- [10] "Incorporating Dual Metric with Sequential Learning for Cross-Domain Recommendations", Conference on Information Systems and Technology, Anaheim, CA, October 2021 (CIST 2021)
- [11] "When Variety-Seeking Meets Unexpectedness: Incorporating Variety-Seeking Behavior into Design of Unexpected Recommender Systems", *ISMS Marketing Science Conference, Virtual, June 2021* (ISMS 2021)
- [12] "Adversarial Learning for Cross-Domain Recommendations", *The 30th Workshop on Information Technology and Systems, Virtual, December 2020* (WITS 2020)
- [13] "Will Unexpectedness Help Recommendations and When: Evidence from A Large-Scale Online Controlled Experiment", Conference on Information Systems and Technology, Virtual, October 2020 (CIST 2020)
- [14] "Dual Learning for Cross-Domain Recommendations: Improving Efficiency and Effectiveness of Recommender Systems", *Conference on Information Systems and Technology, Virtual, October 2020* (CIST 2020)
- [15] "Hybrid Utility Function for Unexpected Recommendations", *International Conference on Web Search and Data Mining, Houston, TX, February 2020* (WSDM 2020 Doctoral Consortium)

#### **AWARDS**

NYU Fubon Doctoral Fellowship	2022-2023
INFORMS Marketing Science Doctoral Consortium	2022
WITS Conference Best Dissertation Award	2021
WITS Conference Best Student Paper Runner-Up Award	2021
SIGIR Travel Award	2020
NYU Stern PhD Fellowship	2017-2022

### **ACADEMIC SERVICE**

**Program Committee**: INFORMS Workshop on Data Science, ACM Conference on Recommender System, Empirical Methods in Natural Language Processing

**Invited Reviewer**: Management Science, IEEE TKDE, ACM TIST, ACM TMIS, IEEE Intelligent System, ACL, EMNLP, ICIS, CIST, WITS

## SELECTED COURSEWORK

<ul> <li>Research Seminar in Data Science</li> </ul>	(by Foster Provost)
<ul> <li>Research Seminar in Digital Economics</li> </ul>	(by Arun Sundararajan)
<ul> <li>Research Seminar in IT &amp; Organizations: Social Perspectives</li> </ul>	(by Natalia Levina)
<ul> <li>Behavioral Research Method</li> </ul>	(by Joel Steckel)
<ul> <li>Causal Inference</li> </ul>	(by Jennifer Hill)
<ul><li>Econometrics I &amp; II</li></ul>	(by William Greene)
<ul> <li>Deep Reinforcement Learning</li> </ul>	(by Lerrel Pinto)
<ul> <li>Convex Optimization</li> </ul>	(by Jiawei Zhang)
<ul> <li>Stochastic Calculus</li> </ul>	(by Paul Bourgade)
<ul> <li>High Performance Machine Learning</li> </ul>	(by Alessandro Morari)